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PATENT & TRADEMARK OFFICE

Patent
Attorney's Docket No. 1033818-000172

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of
Pierre-Louis VIDAL
Application No.: 10/681,802
Filed: October 8, 2003
For: TIRE BELT BASED ON AN INORGANIC FILLER AND A SILANE POLYSULFIDE

MAIL STOP RCE
Group Art Unit: 1733
Examiner: Justin R. FISCHEER
Confirmation No.: 6634

DECLARATION PURSUANT TO 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, José Carlos ARAUJO DA SILVA, declare the following:

(1) I am a French citizen and have the following mailing address:

42 Chemin des Vioux 63430 PONT DU CHATEAU – FRANCE ;

(2) I graduated from Ecole d'Ingenieur de Chimie et Physique de Bordeaux (France) and I am Doctor in Organic Chemistry from University of Bordeaux.

(3) I have been employed with Manufacture Française des Pneumatiques Michelin (hereinafter "MICHELIN") since May 2000, and have continued my employment with MICHELIN until the present time. I am currently engaged in the research and development of rubber composition for tires and notably of coupling agents for silica-filled rubber compositions.

(4) I have read and am familiar with the above-identified United States patent application filed October 8, 2003, the Office Actions and the references cited therein.

(5) I state the following:

Penot describes a combination of an alkoxysilane with an aldimine (R-CH=N-R) and a guanidine derivative, in a silica-filled rubber composition for tire (see abstract and claims);

The tire treads described in Penot are for passenger cars (see col. 1, lines 16-19; Examples, col. 18, line 19; Example 3, col. 18, line 34; claims 48-63);

Tire treads for passenger cars use, in a known manner, rubber compositions based on synthetic elastomers such as SBR or BR (see Tables 1, 3, 5, 7, 9, 11, 13 of Penot);

Penot does not exemplify rubber compositions based on natural or isoprene rubber;

Nakajima relates to rubber compositions which are directed to the belt of tires, that is to say, to rubber composition which are used inside the tire;

These rubber compositions of Nakajima, which are commonly called "internal mixes" by those skilled in the art, have obviously a completely different function, compared to rubber compositions commonly used in the tread (external mixes in contact with the road, thus requiring, in particular, a very high wear resistance). In particular, these "internal mixes" use natural or polyisoprene rubber as elastomer, but not synthetic elastomers such as SBR or BR as described in Penot.

Therefore, for those skilled in the art of tires, it would be illogical to combine Penot with Nakajima, which are in fact concerned by two completely different parts of a tire: the tread on one hand (Penot) and the belt on the other (Nakajima);

Moreover, even if, *arguendo*, one would combine Penot and Nakajima, those of ordinary skill in the art might simply test a combination of aldimine and a guanidine derivative in the belt rubber coating of Nakajima; however, they certainly would not replace the conventional and well-known TESPT as coupling agent, which is used "worldwide" and precisely that used by both Penot and Nakajima in their working Examples;

Furthermore, the presently claimed invention can provide unexpected results, as demonstrated by the data in the specification of the above-identified application. Specifically, composition C-3, which employed a monoalkoxysilane (MESPT) as coupling agent according to the present invention, showed a roughly 50% increase in terms of resistance to fatigue and cracking, as compared to composition C-2, which employed TESPT as coupling agent.

I further declare that all statements made herein of my own knowledge are true and that all statements on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

Date: July 10, 2007

By: José Carlos ARAUJO DA SILVA